

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 154202

Roll No.

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B.Tech.

(SEM. II) THEORY EXAMINATION 2013-14

BIOLOGY – II

Time : 3 Hours

Total Marks : 100

Note :— Attempt all questions from all the Sections as per instruction.

SECTION–A

1. Attempt all parts of this question. Each part carries 2 marks.

(10×2=20)

- (a) What do you mean by Endocrine Glands ?
- (b) What do you understand by Reflex Action and Reflex Arc ?
- (c) Enlist the name of Microbes used in production of Biogas.
- (d) How the Evolution is different from Mutation ?
- (e) What do you mean by Auto Immunity ?
- (f) What is the difference between Addiction and Dependence ?
- (g) What is the difference between Innate Immunity and Acquired Immunity ?
- (h) What do you mean by Vaccine and Vaccination ?
- (i) Name the virus responsible for AIDS.
- (j) What is the difference between Respiration and Breathing ?

SECTION-B

2. Attempt any **three** parts of this question. Each part carries 10 marks. (3×10=30)
- (a) What do you understand by alcohol abuse ? Discuss the methods for its prevention and control.
 - (b) What do you mean by digestion of food ? Explain the absorption of digested food products.
 - (c) What do you mean by Hardy-Weinberg Principle ? What is the use of this principle ?
 - (d) What do you understand by organ system ? Explain the human digestive system with suitable diagram.
 - (e) Explain the structure and function of Kidney.

SECTION-C

Note:—Attempt all questions of this Section. Each question carries 10 marks. (5×10=50)

3. Attempt any **one** part :
- (a) Discuss the mechanism of breathing in humans. How are the gases transported from lungs to the various tissues ?
 - (b) What is double circulation ? Briefly explain the disorders of Circulatory System.
4. Attempt any **one** part :
- (a) What do you understand by excretory products ? How are they eliminated from the body ?
 - (b) Briefly explain the process of urine formation in humans.

5. Attempt any **one** part :
- (a) Discuss the disorders of the excretory system.
 - (b) Explain how the microbes are involved in household products.
6. Attempt any **one** part :
- (a) What do you mean by sewage treatment ? Discuss the role of microbes in sewage treatment.
 - (b) Explain the mechanism of hormone action.
7. Attempt any **one** part :
- (a) What do you understand by neurons ? Justify that the neurons are the structural and functional unit of neural system.
 - (b) Write a short note on the following :
 - (i) Cancer
 - (ii) Digestive Glands.